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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|--------------------------------|---------------------|------------------|
| 09/900,623 | 07/06/2001 | Paul Aubin | P48-1240-1 | 7380 |
| 7590 06/17/2004 | | | | |
| Marina F. Cunningham McCormick, Paulding & Huber LLP Cityplace II 185 Asylum Street Hartford, CT 06103-3402 | | EXAMINER FEGGINS, KRISTAL J | | |
| | | ART UNIT 2861 | | |
| | | PAPER NUMBER | | |
| | | DATE MAILED: 06/17/2004 | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|-------------------------------------|--|
| Office Action Summary | Application No. 09/900,623 | Applicant(s) AUBIN ET AL. | |
| | Examiner K. Feggins | Art Unit 2861 | |

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8 and 11-16, 20-24 is/are allowed.
- 6) ☒ Claim(s) 9 and 17 is/are rejected.
- 7) ☒ Claim(s) 10, 18 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 17 recites the limitation "said edge of said strip material" in line 2. (for the purpose of the rejection, the above limitation has not been given consideration). There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 9, 10 & 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood et al. (6,392,681 B1) in view of Terrell, Jr. et al. (US 5,473,984).

Wood et al. disclose the following claimed limitations:

* regarding clm 9, a printer having a printhead assembly for printing on a sheet material disposed on a worksurface, said printhead assembly including a plurality of printing elements (Abstract, col 14, lines 51-67);

* a printhead support structure for removably supporting said printhead assembly (col 13, lines 48-64, col 28, lines 50-67, col 29, lines 1-5, figs 2, 4, 5, 19A);

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* a pin for removably securing said printhead assembly to said printhead support structure, said pin fitting through said printhead assembly and engaging said printhead support structure (col 13, lines 48-64, col 28, lines 50-67, col 29, lines 1-5, figs 2, 4, 5, 19A).

*regarding clm 10, wherein said pin fits through an aperture formed within said printhead assembly with said aperture having a first aperture portion and a second aperture portion, said second aperture portion having an oval shape to allow relative movement of said pin and said printhead assembly (col 13, lines 48-64, col 28, lines 50-67, col 29, lines 1-5, figs 2, 4, 5, 19A);

* said set screw fits through a set screw opening formed within said printhead assembly to allow said set screw to engage said pin such that when said set screw is adjusted, relative movement of said pin and said printhead assembly occurs, thereby properly orienting said printing elements with respect to said worksurface (col 13, lines 48-64, col 28, lines 50-67, col 29, lines 1-5, figs 2, 4, 5, 19A);

*regarding clm 17, a printer having a printhead assembly for printing on a sheet material disposed on a worksurface (fig 1)

* a printhead support structure for removably supporting said printhead assembly (col 13, lines 48-64, col 14, lines 51-67, col 28, lines 50-67, col 29, lines 1-5, figs 2, 4, 5, 19A);

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* a pin for securing said printhead assembly to said printhead support structure, said pin fitting through said printhead assembly and engaging said printhead support structure (col 13, lines 48-64, col 14, lines 51-67, col 28, lines 50-67, col 29, lines 1-5, figs 2, 4, 5, 19A);

Wood et al. does not disclose the following claimed limitations:

* regarding clm 9, at least one set screw engaging said pin for adjusting angular orientation of said printing elements of said printhead assembly with respect to said worksurface, and set screw being disposed within the printhead assembly.

* regarding clm 17, at least one cam/cantilever arm/ cooperating with said pin to adjust position of said printhead /with respect to said edge of said strip material; not given weight/.

Terrell, Jr. et al. disclose the following claimed limitation:

*regarding clm 9, at least one set screw engaging said pin for adjusting angular orientation of said printing elements of said printhead assembly with respect to said worksurface (col 3, line 61-col 4, line 24, figs 5-7,11) for the purpose of adjusting printheads that are not subject to tolerance build-up problems.

* regarding clm 17, at least one camfore and aft adjusting means/ cooperating with said pin to adjust position of said printhead/ with respect to said

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edge of said strip material/ (col 3, line 61-col 4, line 24, figs 5-7,11) for the purpose of dynamically adjusting printheads in printers.

It would have been obvious at the time of the invention was made to a person having ordinary skill in the art to utilize at least one set screw engaging a pin for adjusting angular orientation of the printing elements of the printhead assembly with respect to the worksurface said set screw being disposed within said printhead assembly; and at least one cam cooperating with the pin to adjust position of the printhead, taught by Terrell, Jr. et al. into Wood et al. for the purposes of adjusting printheads that are not subject to tolerance build-up problems, and for the purpose of dynamically adjusting printheads in printers.

Response to Arguments

4. Applicant's arguments, see pages 9-11, filed 3/31/2004, with respect to the rejection(s) of claim(s) 1-4, 6-8, 23-24 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn.

Applicant's arguments filed 3/31/2004 have been fully considered but they are not persuasive. Please see the above rejection Wood et al. in view of Terrell, Jr. et al. which discloses a printhead assembly for printing on a sheet material disposed on a worksurface having a set screw disposed within the printhead assembly.

In response to applicant's argument that Wood et al. in view of Terrell Jr. et al. does not disclose a set screw being disposed within the printhead assembly is acknowledged. However, Wood et al. in view of Terrell Jr. et al. does disclose a set screw being disposed within the printhead assembly (col 3, line 61-col 4,

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line 24, figs 5-7 & 11). These figures and the cited column lines disclose the set screw is located within the printhead assembly, although it is not disclosed completely within the printhead assembly it is disclosed within the printhead. Furthermore, there is no "means" in the claims that would require the meanings within the specification to be read within the claims. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Allowable Subject Matter

5. Claims 1-8, 11-16, 20-24 are allowed.

Claims 18-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The primary reason for indicating allowable subject matter of claims 1-8 is the inclusion of limitations of a printhead assembly that includes means for adjusting angular orientation of said plurality of printing elements of said printhead assembly with respect to said worksurface, said means for adjusting said angular orientation being disposed within the printhead assembly. It is these limitations found in the claims, as they are claimed in the combination of, which has not been found, taught or suggested by the prior art of record that makes these claims allowable over the prior art.

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The primary reason for indicating allowable subject matter of claims 18-19 is the inclusion of limitations of a printhead assembly that includes a pin that has a recessed portion for said at least one means for engaging to engage said recessed portion of said pin and a cam fits through a cam opening formed within the printhead assembly to allow the cam to cooperate with the pin such that when the cam is adjusted, the printhead assembly is moved relative to said edge of the sheet material for proper printing operation. It is these limitations found in the claims, as they are claimed in the combination of, which has not been found, taught or suggested by the prior art of record that makes these claims allowable over the prior art.

The following is an examiner's statement of reasons for allowance: The primary reason for the allowance of claims 11-13 is the inclusion of the method steps for adjusting orientation of a removable printhead assembly that includes an adjusting position of the printhead assembly within the printhead supporting structure for a plurality of printing elements of the printhead assembly to be properly oriented with respect to a worksurface by adjusting means for adjusting orientation of the printing elements with respect to the worksurface wherein the means for adjusting is disposed within the printhead assembly. It is these method steps found in the claims, as they are claimed in the combination of, which has not been found, taught or suggested by the prior art of record that makes these claims allowable over the prior art.

The primary reason for the allowance of claims 14-16 is the inclusion of limitations of a printhead assembly that includes means for adjusting skew of the

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printhead assembly with respect to an edge of said sheet material means for adjusting skew being disposed within the printhead assembly. It is these limitations found in the claims, as they are claimed in the combination of, which has not been found, taught or suggested by the prior art of record that makes these claims allowable over the prior art.

The primary reason for the allowance of claims 20-22 is the inclusion of method steps for adjusting skew of a printhead assembly that includes adjusting a mechanism for adjusting skew of the printhead assembly with respect to an edge of strip material to ensure proper orientation of the printhead assembly with respect to the edge of the strip material disposed on the worksurface, with the mechanism for adjusting skew being disposed within the printhead assembly. It is these method steps found in the claims, as they are claimed in the combination of, which has not been found, taught or suggested by the prior art of record that makes these claims allowable over the prior art.

The primary reason for the allowance of claims 23-24 is the inclusion of limitations of a printer having a printhead assembly that includes means for adjusting angular orientation of the printing elements of the printhead assembly with respect to said worksurface, said means for adjusting said angular orientation being disposed within said printhead assembly, and means for adjusting skew of said printhead assembly with respect to an edge of said sheet material. It is these limitations found in the claims, as they are claimed in the combination of, which has not been found, taught or suggested by the prior art of record that makes these claims allowable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Isogai (US 5436772) discloses a thermal transfer printing apparatus in which a thermal head having a series of selectively energized heating elements. Nagahata et al. (US 5874983) disclose a printhead assembly with a set screw disposed within the printhead. Kapushinski et al. (US 6,452,620 B1) disclose methods and apparatus for improved thermal printing.


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Communication Within The USPTO

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to K. Feggins whose telephone number is 571-272-2254. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on 571-272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


K. Feggins
June 14, 2004